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Some Leading Propositions for an International Discussion of the World's Monetary Problem

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THE war has been financed to a great extent by means of creating more money: partly in the form of new issues of bank-notes or state paper money; partly in the form of extended bank-credits, which could be used as means of payment. The latter method has indirectly caused a corresponding increase of the circulating medium of exchange to satisfy the increased demand for cash for smaller payments. For the proportion between the payments in bank-credits and those in cash has been pretty constant as determined by the customs of each people.

The result of the creation of new money has been, in both cases, that a new buying capacity has been put at the disposal of the government. The total buying capacity of the community having in this way been increased without a corresponding increase in the commodities to be bought, a general rise of prices has followed. With higher prices the need for means of payment has been increased proportionally and the mass of the medium of exchange which could be kept in circulation has, therefore, at every time been proportional to the general level of prices. But the *primus motor* to the enhancement of prices has always been the creation of an artificial buying capacity.

Inflation.—In this way an inflation has taken place in every one of the countries involved in the war. The cause has been that the government has given out more for the war than it could get at its disposal in the form of real savings; and the result has been an enforced restriction of consumption by means of which real commodities have been set free for the disposal of the government. Thus inflation has, without doubt, been an effective means of war finance; but certainly a means which has caused great hardship and done much harm.

It has often been said that inflation could have been avoided if war-finance had been based to a greater extent on taxes. No doubt there is much soundness in this view. But it ought to be observed that taxes as well as loans may be paid partly by real savings and partly by credit operations involving inflation. With sharply progressive taxation of income and capital the latter method of payment of taxes has probably had a very wide application.

The process of inflation has also extended itself to neutral countries which have been, more or less, compelled to give advances to the belligerents. As long as these advances could be kept within the limits of the saving capacity of the country they would not cause any inflation. But as soon as this limit was exceeded the advances could be given only by aid of the creation of more money and the process of inflation began. Of course, extraordinary state expenditure also has had its part in this process.

Gold has not been unaffected by this general deterioration in the value of money. The masses of paper money created have pressed down the value of gold as against commodities to something about the half of what it used to be before the war. In earlier cases when a country has flooded itself with paper money, the gold has gone out to other countries. Gold thus having become more abundant in the rest of the world has without doubt lost a part of its value, but a very insignificant part. Now, when gold has been driven out from so many and big countries, there has been very narrow space left for the superfluous gold and the following depreciation of the metal has necessarily been very severe. The dollar represents at present most truly gold. The general level of prices in the United States being about 200 as against 100 before the war, the dollar has come down to something about half its old value and the same should then be the case in respect to gold. A fully reliable estimate of the value of gold as against commodities is, however, hardly possible as long as the gold movements in the world are not free.

The inflation of any monetary standard should of course not be measured by the agio for a metal which is itself depreciated, but by the agio that has to be paid for commodities, and no country must think that it has gone free from the process of inflation because it may see its way to resume gold payments.

The depreciation in the value of gold has caused some neutral countries to protect themselves against an import of gold which would have meant a further depreciation of their monetary standard. Sweden has taken the lead in this policy but has not attained its aim. Other depreciating factors, viz., more or less compulsory loans to foreign countries and extravagant state expenditure, have been quite predominating. The Swedish crown has without doubt lost far more of its purchasing power as against commodities than the dollar.

THE CAUSE OF THE GENERAL RISE OF PRICES

Decreased Production.—The creation of more money is not the only cause of a rise of prices. A reduction of the total mass of commodities to be handled by a given stock of money must have the same effect on prices, as long as this stock of money is unaltered. Such a reduction has probably taken place during the war in most European countries. If the mass of commodities decreases by 10 per cent and the stock of money at the same time increases by 100 per cent, the result must be a rise of prices from 100 to 220. The main cause of the rise of prices has in reality, as in this example, been the increased supply of money, the reduction of the mass of commodities having always played a very secondary rôle in this respect. For such a reduction is very sharp, indeed, if it surpasses the limit of say 20 or 30 per cent. But the stocks of money have been increased by 200 or 300 per cent and in the most impoverished countries even more.

If the mass of commodities in any country diminishes by 10 per cent, the stock of money of that country ought strictly to be diminished by 10 per cent also. Where this is done no rise of prices will take place. In this sense one may say that every rise in prices

is caused by a too abundant supply of the means of payment and is proportional to this abundance.

Inflation has been defined by the Federal Reserve Board of the United States as "the process of making reductions in credits not based upon a commensurate increase in the production of goods."[1] But the omission of making reductions in credits commensurate to a decrease in the production of goods must have the same effect upon prices and may, therefore, justly be called an inflation too. Thus we may speak of "inflation" in a more narrow or in a more general sense. If there has been no increase in the mass of commodities, as is probably the case for most European countries during the war, the increased supply of money represents inflation in the narrow sense. But in a wider sense inflation is measured by the rise of the general level of prices.

Popular Ideas.—The popular idea that a shortage in commodities could cause a rise of prices which would necessitate the creation of more money is obviously a fallacy. Popular explanations of the rise of prices generally start from such factors as the high costs of transportation, the prohibition of imports, the diminished output of labor, etc. Such factors can obviously have an influence on the general level of prices only in so far as they contribute to a decrease in the total mass of commodities. But so far due regard has already been paid to these factors in the explanation here given. Other factors which used to be set forth in the discussion refer themselves ultimately to an increased supply of money. This is the case, *e.g.*, when people speak of high wages, high costs of raw materials, etc., as causes of a general increase of prices. In reality there can be no other independent causes of an upward movement in the general level of prices than those two which have been stated above.

[1] *Fed. Res. Bulletin*, July 1, 1919, p. 614.

THE INTERNATIONAL EXCHANGES

The Purchasing Power Parity.—The internal value or, what is the same thing, the purchasing power of the money of a country is determined exclusively by the scantiness of the supply of means of payment in that country in comparison with the volume of trade to be handled.

In any other country this money is valued proportionally to its buying capacity as against such commodities as can be exported from the first country. This valuation takes place in the money of the other country and must, therefore, be proportional to the general level of prices of that country. If trade between two countries, A and B, is free, the price of the money of A in the money of B stands consequently in direct proportion to the purchasing power of the A-money and in inverse proportion to the purchasing power of the B-money. The rate of exchange between the monetary standards is, therefore, determined, essentially, by the quotient of the purchasing power of these standards in their respective countries. This rate, which may be called *the purchasing power parity*, should always be regarded as the normal parity.

Change in Parities.—During the war the buying capacity of the different monetary standards has, owing to the overabundant supply of means of payment, been much reduced, though in

very different proportions. Consequently the purchasing power parities have undergone very important alterations and are now quite different from the parities which were in force before the war. These old parities have, therefore, now lost their old significance and can no longer in any respect be regarded as normal.

Rates of Exchange and Parities.—In the earlier part of the war, when a certain amount of freedom still was left for international trade, the actual rates of the exchanges used to coincide fairly well with the purchasing power parities. But later the sharp restrictions of the trade between nations have often distorted the exchanges. Thus if trade between two countries is more hampered in one direction than in the other, the value of the money of the country whose export is relatively more restricted will fall, in the other country, beneath the purchasing power parity. There are many instances of such abnormal deviations of the exchanges. Thus the inflation in the United States has without doubt been much smaller than in Sweden and the dollar has kept much more of its old purchasing power than the Swedish crown. The purchasing power parity must, therefore, have risen considerably above the old parity of Kronor 3: 73 for the dollar. But the actual rate has fallen, under the time of the severest restrictions of American exports to Sweden, far beneath their old parity, the mean monthly rate for November, 1917, being as low as Kroner 2: 55.

There are also other factors which may cause temporary deviations from the purchasing power parity, as distrust in the future of a monetary standard, outselling of the money of a country at any price when foreign credits cannot be secured, export of money in order to evade exorbitant taxes at home, etc.

Variations in the purchasing power parity naturally have a disturbing influence on the trade between the countries. But as soon as this parity has been established at a certain level it is of no importance whether this level is high or low. Thus the export trade of a country is not hampered by low quotations of the foreign exchanges as long as these quotations correspond only to a high level of prices in foreign countries or a low level at home.

It is equally clear that every deviation of the actual rate of exchange from the purchasing power parity must be the cause of considerable difficulties for international trade. The export from A to B must be very much hampered if the money of B is quoted in A lower than would correspond to the general level of prices in B as compared with that in A. At the same time the import to A from B would get an artificial stimulus from such a quotation. Both these effects would tend to enhance the value of the B-money in A and bring it up again to its purchasing power parity, which is, therefore, the point of equilibrium for the exchanges. Of course, as long as payments can be made from A to B in gold this may cause in B a superabundant supply of money and, therefore, a rise in prices.

The present exchanges are determined, principally, by the purchasing power parity between the different monetary standards. But there are important deviations from these normal rates. These deviations will, however, mainly come to an end as soon as freedom is restored to international

trade and somewhat stable conditions have been established. The exchanges will then show only small variations about their purchasing power parities.

When the exchanges move against a country people generally explain it as a result of an adverse balance of trade. But this explanation is obviously quite inadequate if the deviation of the exchanges is considerable and has more than a temporary character. For if a country buys more from another than it sells to it the balance must be paid in some way, either by export of securities or by loans in the other country. Thus the balance of payments must, on the whole, equalize itself and there is no reason for an alteration in the rate of exchange. Should such an alteration occur it must be taken as a proof of an inflation which has brought down the internal value of the monetary unit of the country and raised its general level of prices. With an unaltered price-level and an adverse rate of exchange the country's export trade should get a strong stimulus which would tend to bring the exchange back to its normal rate. A temporary alteration in the rate of exchange could of course take place if the international trade were not free. A one-sided hampering of the export of the country would, as explained above, cause an undervaluation of its money abroad. But the explanation of the deviation of the rate of exchange from its purchasing power parity would then have to be sought in the one-sided hindrances against the trade between the countries.

It is often believed that a country which has seen the price of its money in foreign places sink very much below its pre-war parity will be able, after the war, to restore the old exchanges only by increasing its exports. This will certainly be possible if the low quotations of the money of the country have been caused exclusively by one-sided hindrances against its exports. But if they are signs of a deteriorated internal value of the money no development of the exports of the country can better the exchanges. These will, in the future, be governed exclusively by the purchasing power parities and will, therefore, be improved only if the country succeeds in reducing its inflation thus giving its monetary unit a higher internal value.

In the popular explanations of the enhancement of prices a prominent place usually is given to the fact that prices have risen in other countries. We can now see that this explanation must be false. The exchanges adjust themselves to the general price level of each country. If then a general rise of prices has taken place in A, the value of the money of A in B will sink in the same proportion and with this new rate of exchange the higher price level in A cannot generally cause a higher price level in B. If the supply of means of payment in B is kept scanty enough the purchasing power of the B-money will be unaltered and quite independent of any inflation in A.

MEASURES FOR STABILIZATION OF MONETARY STANDARDS

The world is suffering, at present, most severely from the uncertainty of the internal value of money in the different countries and from the incessant fluctuations of the rates of exchange. Production which involves investment of capital becomes very hazardous when the future value of

money is quite uncertain. And the same holds true in regard to every international business transaction as long as nobody can tell, not even approximately, what the rate of exchanges will turn out when the transaction is completed. Under these circumstances the revival of productive activity and of international trade is very much hampered and delayed, to the greatest material detriment to the whole world and the most formidable danger for the preservation of civilized society.

Stabilize Money of the Separate Countries

Rates of Discount.—In meeting these difficulties our first aim should be to restore stability to the money of each separate country. This involves of course the cessation of all further inflation. The general means of keeping up a monetary standard is the sufficient limitation of the supply of means of payment in that standard. The regulator of this supply is the rate of discount. In the whole world the rates of discount have been too low during the war. The real scarcity of capital would have commanded a much higher interest than the 5 or 6 per cent which have generally prevailed but which have only been the result of a continual falsification of the money market. Even now, after the war, the world's need of capital is so great, in comparison with the scanty supply, that a real equilibrium can be attained only by aid of higher rates of interest than those generally prevailing.

Reduction of State Expenditures.—But even the most restrictive discount policy cannot set a limit to the inundation with money which still is going on. This steady inundation is mainly the result of lavish expenditures of the governments, expenditures which go beyond the amount of actual savings which the state can dispose of either in taxes or in loans and which must, therefore, partly be paid for by creation of more money. Stability in the value of money can nowhere be attained unless state-expenditures are most severely cut down. With state expenditure reduced to a sound base a rational discount policy will always be able to prevent further inflation and keep up the buying capacity of the money at its present level. This stabilization of the monetary standard will, of course, be facilitated by a general return to more intense work and by the increased supply of goods which might be attained in this way. But these improvements, very desirable in themselves, will be of no help whatsoever as long as the supply of means of payment is not regulated with the decided aim of keeping the value of the unit of money unaltered.

Stabilize Value of the Unit of Money.—It is important to root out the popular fallacy that a general rise of prices can be prevented by legislation enacting maximum prices and inflicting punishments on speculators, while the government is incessantly flooding the country with fresh money and the bank-rate is kept too low.

Likewise the fallacy that it is possible to improve a monetary standard by heaping up masses of gold in the vaults of the central bank ought to be abandoned. The value of the money of any country is determined by the scantiness of the relative supply of means of payment in that money. As long as this supply is not reduced, no measures whatever can give the monetary unit a

higher value. If the money of the country is kept about par with gold by a sufficient limitation of the supply of means of payment, a gold reserve may prove useful for the actual carrying through of gold payments. But if this fundamental condition is not fulfilled the gold in the vaults is not much more than an empty show. The value of the money of a country is often confounded with the credit of that country. It is believed that a higher value can be restored to the monetary standard if only the government can reestablish its credit. According to what has been said here, this view must be false.

Restrictive Discount Policy

By aid of a very restrictive discount policy it would theoretically be possible to restore to any monetary standard its former value or a part of it. This would, however, involve an incessant lowering of prices during a long period, a proceeding which could not but have the most disturbing effect on all enterprise, hamper production and expose the country to serious depressions. Besides, every rise in the value of the monetary unit of a country means a corresponding increase in the real burden of the debt contracted in this money, an increase which most countries are not able to bear. Therefore, though small adjustments of a monetary standard may be desirable, every attempt at a restoration of the old value of money or the old level of prices should be given up where the monetary unit has lost, as in most cases it actually has, the greater part of its pre-war value as against commodities. The popular belief that prices by and by will come down to their old level by themselves or at least without any definite measures of monetary policy seems to be quite groundless.

The International Monetary Problem

The stabilization of the internal value of money, *i.e.*, of its buying capacity against commodities, is by far the most urgent object to be pursued by the monetary policy which we now have to enter upon. Between two nations which have attained this end a new normal rate of exchange will establish itself, this rate being determined by the quotient of the purchasing power of money in the respective countries. As freedom of trade and general confidence are gradually restored the actual rates will tend to coincide nearer and nearer with this normal rate.

The new normal rates of exchanges may be, and in some cases certainly will be, very different from the pre-war-parities. But this is a matter of secondary importance. The essential thing is that there should be *normal rates* and that these be kept as constant as possible. For this end no measure is needed other than the stabilization of the internal value of each monetary standard concerned.

It follows, however, that all countries are, in respect to the future of the international exchanges, dependent upon one another. It is, therefore, highly desirable that one country should take the lead, fixing the value of its money as against commodities and keeping it henceforth as constant as possible. The country from which this could first be expected is the United States. In their own national

interests, as well as in the interests of the world, they should give up every attempt at a reduction of their present level of prices, but on the other hand strongly resist the tendency to further inflation of the dollar which actually has shown itself in the last few months, in spite of the vain political campaign against the enhancement of prices.

With the dollar stabilized in the United States every other country could adjust the value of its money in a convenient proportion to the dollar and then, keeping its money in a constant internal value, attain a fixed rate of exchange with the United States as well as with every other country that followed the same line of endeavor.

THE GOLD QUESTION

There seems to be in all nations a desire to return to gold payments. The value of gold as against commodities having been reduced, during the war, to about the half of what it used to be before the war, the resumption of gold payments will be easy enough for those countries where the deterioration of the monetary standard has not gone much further. But a country with still more inflated money should give up every aim at a redemption of its notes in gold in conformity with the old standard. Such a country must first attain a certain stabilization of the internal value of its paper money. When this value is sufficiently fixed and foreign exchanges have settled themselves according to it, the country may take into consideration whether a new gold parity shall be given to its monetary unit.

The United States having already resumed gold payments, the dollar may be taken henceforth to represent gold. When a country, as said above, establishes a fixed relation of its money to the dollar, it has then therewith also put its money in a fixed relation to gold and can, if it wishes, resume gold payments on this basis. If the relation lies in the neighborhood of the old parity, the country will probably try to adjust its monetary standard so as to correspond exactly to the old parity. This will be possible, *e.g.*, for England, but only at the price of the most energetic application of the above named measures for rising the value of a monetary standard: viz., a high rate of interest and a severe restriction of state expenditure. Other countries will find their standards far too much deteriorated to be brought up to the old parity with the dollar and will consequently choose a new convenient parity and concentrate all their energies upon keeping their money on that parity for the future.

In so far as resumption of gold payments are thought desirable it is essential that the value of gold as against commodities should henceforth be kept as constant as possible. This is a matter which will require the most careful attention. Gold, as is said above, now stands at about half its former value. The cause is that the demand for gold has diminished. The actual circulation of gold is very generally abandoned and the great central banks have reduced their claims on relative gold-coverings considerably. Should a return to pre-war conditions in this respect set in, the inevitable consequence would be an enhancement of the value of gold which would make resumption of gold-payments much more difficult than it otherwise ought to be and which would expose countries

with effective gold standards to a prolonged and probably most serious depression. It seems, therefore, to be a common interest for the whole world that such a rise of the value of gold should be avoided. Thus all countries should abstain from measures for reintroducing an actual gold circulation and the central banks should content themselves with their present standard of gold-covering. Countries which like the United States are in a position to draw gold to themselves from the rest of the world should abstain from doing so. The stabilization of the value of gold will clearly require, in the next years, a close coöperation of all countries.

We should on this subject constantly have in mind that the stability of the value of gold has very seriously suffered by the diminished demand for gold here referred to. Gold has never been a very stable standard of value; but it will henceforth, as far as can be judged, be a more inferior standard than it used to be. From this, friends of the gold standard may draw the conclusion that the old demand for gold should be restored, even at the cost of a new price-revolution and a prolonged period of industrial depression.

Theoretically it may, on the other side, be argued that the present situation should be used to abolish gold altogether as a standard of value and go over to a more rational standard, based on index numbers. Every country is, of course, free to do that for itself, but it seems practically sure that the time for any sort of international agreement on a common standard of this nature is yet distant. Schemes for creating a new world money, which now and then are suggested in the papers, mostly involve the flooding of the world with additional paper money and, indeed, make themselves attractive to the general public only by measures which have ultimately this effect. That the way out of the present difficulties, however, cannot be sought in any such direction seems clear enough.

Which policy in regard to gold will in reality be preferred is very difficult to predict. But in any case it is of paramount interest that all countries should act in this delicate matter in concord with one another and in clear understanding of the whole bearing of the problem.